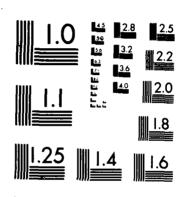
AD-A174 239

THE ARDENNES - 1944: AN ANALYSIS OF THE OPERATIONAL DEFENSE(U) ARMY COMMAND AND GENERAL STAFF COLL FORT LEAVENHORTH KS SCHOOL OF ADVANCED MILITARY STUDIES F/G 15/7 NL



CROCOPY RESOLUTION TEST CHART
NATIONAL BUREAU OF STANDARDS 1963-A



The Ardennes-1944: An Analysis Of The Operational Defense

AD-A174 239

by

MAJOR FRANCIS M. CAIN, III

School of Advanced Military Studies
U.S. Army Command and General Staff College
Fort Leavenworth, Kansas



OTIC FILE CORY

APPROVED FOR PUBLIC RELEASE: DISTRIBUTION UNLIMITED.

16 May 1986

Approved for public release; distribution is unlimited

	REPORT DOC	JMENTATION	PAGE			
1a. REPORT SECURITY CLASSIFICATION		16. RESTRICTIVE	MARKINGS			
UNCLASSIFIED 2a. SECURITY CLASSIFICATION AUTHORITY		3 DISTRIBUTION	3 DISTRIBUTION/AVAILABILITY OF REPORT			
2b. DECLASSIFICATION / DOWNGRADING SCHEDULE		DISTRIBUTION IS UNLIMITED				
		5. MONITORING ORGANIZATION REPORT NUMBER(S)				
4. PERFORMING ORGANIZATION REPOR		5. MONITORING	ORGANIZATION	REPORT NUME	BER(S)	
62. NAME OF PERFORMING ORGANIZATE AUS ARMY COMMAND AND GENERAL STAFF COLLEGE	FION 6b. OFFICE SYMBOL (If applicable)		7a. NAME OF MONITORING ORGANIZATION			
6c. ADDRESS (City, State, and 21P Code) FORT LEAVENWORTH, KA 66027-6900	NSAS	7b. ADDRESS (Ci	ty, State, and Zli	P Code)		
8a. NAME OF FUNDING/SPONSORING ORGANIZATION	8b. OFFICE SYMBOL (If applicable)	9. PROCUREMEN	9. PROCUREMENT INSTRUMENT IDENTIFICATION NUMBER			
8c. ADDRESS (City, State, and ZIP Code)		PROGRAM			WORK UNIT	
MONTOGE A DIT	O. TIME COVERED ROM TO :	14. DATE OF REPO	986.		AGE COUNT 51	
FIELD GROUP SUB-GR	BLITZKRIEC MILITARY T	18. SUBJECT TERMS (Continue on reverse if necessary and identify by block number) BLITZKRIEG ARDENNES MILITARY THEORY BATTLE OF THE BULGE WEB DEFENSE				
20. DISTRIBUTION / AVAILABILITY OF AI	AME AS RPT. DTIC USER	21. ABSTRACT SE UNCLASS	SIFIED			
22a NAME OF RESPONSIBLE INDIVIDUA MAJ FRANCIS M. CAIN		226. TELEPHONE: 913-684		de) 22c. OFFIC ATZL-	E SYMBOL SINV	
DD FORM 1473, 84 MAR	83 APR edition may be used	until exhausted.	SECURITY	CLASSIFICATION	ON OF THIS PAGE	

ABSTRACT

THE ARDENNES - 1944: AN ANALYSIS OF THE OPERATIONAL DEFENSE, By Major Francis M. Cain III, USA, 51 pages.

This study examines the nature of the defense at the operational level of war by analyzing the Battle of the Bulge in December 1944 using the concepts of blitzkrieg and "web" defense. The monograph begins by discussing the influence of defensive theory on the operational concepts of blitzkrieg and "web" defense. The German concept of blitzkrieg incorporates Clausewitz's theory of the offense by emphasizing suprise, speed, and concentration at the decisive point. The counter to the blitzkrieg offense is found in COL F. O. Miksche's concept of "web" defense. This concept incorporates Clausewitz's theory of the defense by emphasizing the advantages of terrain, time, and counterattack.

The Battle of the Bulge provides an excellent example of a "web" defense pitted against a blitzkrieg offense. The German blitzkrieg in the Ardennes in 1944 failed for many reasons: 1) Army Group B did not concentrate its strength against the most vulnerable section of the Allied line; 2) The rugged Ardennes terrain could be easily defended against attacks by mechanized forces; 3) Key American commanders (Eisenhower, Gerow, and Middleton) quickly recognized the value of holding several key road junctions (St. Vith, Malmedy, Bastogne, Marche, and Rochefort) which dominated movement through the Ardennes; 4) The Allies held the shoulders of the German penetration; 5) The Allies quickly concentrated armored and motorized units to blunt the German penetration; and 6) Army Group B lacked operational reserves and adequate logistic support. The analysis of the Ardennes shows that the defense is indeed the stronger form of war and that a "web" defense can be employed effectively against a blitzknieg offense.

The Andennes provides an excellent example of many important German operational concepts which are very similar to Soviet offensive concepts. The use of COL Otto Skorzeny's 150th Panzer Brigade is very similar to the anticipated Soviet employment of Spetsnaz units into NATO's rear area. German panzer divisions were employed in a role similar to Soviet Operational Maneuver Groups (OMG). The Allies effectively used a "web" defense to counter these threats.

If NATO is to defeat a Soviet attack without resorting to the use of nuclear weapons, it must adopt a viable operational defensive concept. "Web" defense is such a concept.

ESSENTIAL PROPERTY

The Ardennes-1944: An Analysis Of The Operational Defense

by

MAJOR FRANCIS M. CAIN, III

School of Advanced Military Studies

U.S. Army Command and General Staff College

Fort Leavenworth, Kansas



APPROVED FOR FUELIC MELLANGED DISTRIBUTION UNLIMINATION.

16 May 1986

Approved for public release; distribution is unlimited

School of Advanced Military Studies Monograph Approval

. III. Major, Corps of
1944: An Analysis of the efense
Monograph Director
Director, School of Advanced Military
Advanced Military Studies
Director, Graduate
Degree Programs
of May 1986.
Archest to the Tolling NITT
310 cm
District
Avst) as a

ABSTRACT

THE ARDENNES - 1944: AN ANALYSIS OF THE OPERATIONAL DEFENSE, By Major Francis M. Cain III, USA, 51 pages.

This study examines the nature of the defense at the operational level of war by analyzing the Battle of the Bulge in December 1944 using the concepts of blitzkrieg and "web" defense. The monograph begins by discussing the influence of defensive theory on the operational concepts of blitzkrieg and "web" defense. The German concept of blitzkrieg incorporates Clausewitz's theory of the offense by emphasizing suprise, speed, and concentration at the decisive point. The counter to the blitzkrieg offense is found in COL F. O. Miksche's concept of "web" defense. This concept incorporates Clausewitz's theory of the defense by emphasizing the advantages of terrain, time, and counterattack.

The Battle of the Bulge provides an excellent example of a "web" defense pitted against a blitzkrieg offense. The German blitzkrieg in the Ardennes in 1944 failed for many reasons: 1) Army Group B did not concentrate its strength against the most vulnerable section of the Allied line; 2) The rugged Ardennes terrain could be easily defended against attacks by mechanized forces; 3) Key American commanders (Eisenhower, Gerow, and Middleton) quickly recognized the value of holding several key road junctions (St. Vith, Malmedy, Bastogne, Marche, and Rochefort) which dominated movement through the Ardennes; 4) The Allies held the shoulders of the German penetration; 5) The Allies quickly concentrated armored and motorized units to blunt the German penetration; and 6) Army Group B lacked operational reserves and adequate logistic support. The analysis of the Ardennes shows that the defense is indeed the stronger form of war and that a "web" defense can be employed effectively against a blitzkrieg offense.

The Ardennes provides an excellent example of many important German operational concepts which are very similar to Soviet offensive concepts. The use of COL Otto Skorzeny's 150th Panzer Brigade is very similar to the anticipated Soviet employment of Spetsnaz units into NATO's rear area. German panzer divisions were employed in a role similar to Soviet Operational Maneuver Groups (OMG). The Allies effectively used a "web" defense to counter these threats.

If NATO is to defeat a Soviet attack without resorting to the use of nuclear weapons, it must adopt a viable operational defensive concept. "Web" defense is such a concept.

TABLE OF CONTENTS

	Page
Section I.	Introduction1
II.	Theory of Operational Defense4
	Theory of the Offense4
	Concepts of German Blitzkrieg5
	Theory of Defense7
	"Web" Defense9
III.	The Ardennes - 194412
IV.	Defeat of the German Blitzkrieg20
	Failure in the Ardennes20
	Superiority of the Defense26
٧.	Operational Defense and AirLand Battle.27
	Soviet Blitzkrieg Theory27
	The Ardennes and the Modern
	Battlefield29
VI.	Conclusion32
Appendix A.	Maps36
	Endnotes47
	Bibliography50

SECTION I

INTRODUCTION

Attack and defense have been, and probably always will be, the two basic forms of fighting. They permeate each other; an attack that is successful develops into pursuit, but if unsuccessful or only partially successful, it develops into a defense. A defense, if successful, develops into counterattack, or if unsuccessful develops into retreat. The point is that warfare, like a pendulum, always swings from one extreme to the other. Warfare is a system which is seldom in equilibrium, and therefore almost never at rest, but constantly changing as new technologies are developed and new techniques and procedures are adopted.

A large portion of Carl von Clausewitz's classic treatise, War, is devoted to a discussion of the relationship between the offense and the defense. The German concept of blitzkrieg incorporates Clausewitz's theory of the offense by emphasizing surprise, speed, and concentration of materiel and fire power to defeat the enemy at the decisive point. The counter to blitzkrieg offense is found in COL F.O. Miksche'se concept of defense which incorporates Clausewitz's theory of defense advantages emphasizing the of terrain, time, counterattack. The blitzkrieg and "web" defense concepts firmly based on Clausewitz's teachings and have been applied, with varying degrees of success, by various armies across almost the entire spectrum of conflict. Analysis of a battle which

pitted a blitzkrieg offense against a "web" defense may provide insight into Clausewitz's theoretical concepts and how they might be applied today. In many respects, the World War II Ardennes operation (also known as the Battle of the Bulge) is an ideal historical event for such an analysis. The purpose of this paper, therefore, is to gain insight into the operational defense by analyzing the Ardennes operation of December 1944, using the concepts of blitzkrieg and "web" defense.

Except for a lack of close air support, the German offensive in the Ardennes is an excellent example of blitzkrieg. Although the Allied defense began as a rigid, forward defense, it was quickly transformed into a classic "web" defense. Thus, the confrontation between German and Allied armies in the Ardennes in December 1944 provides us with a textbook example of the application of Clausewitz's theory of the defense against his theory of the offense, and presents us with an excellent historical example to test the validity of Clausewitz's theories.

The Ardennes was the largest single operation ever fought by the U.S. Army. Over 600,000 Allied soldiers fought, and some 75,000 became casualties. The operation eventually involved two Allied army groups consisting of three armies, seven corps, and nineteen divisions. Forty years later, its conduct is still extremely controversial. As one of the most intense and hard-fought operations of World War II, the Ardennes provides a good example of the nature of war between mechanized forces. As such, the Ardennes exhibits many of the characteristics we can expect to see in a future mid- to high-intensity conflict.

Analysis of the Ardennes should provide today's soldiers with a better understanding of the nature of war between mechanized forces and insight into the conduct of the defense at the operational level.

This monograph examines the nature of defense and offense by discussing the influence of offensive and defensive theory on the operational concepts of blitzkrieg and "web" defense. Next, these operational concepts are evaluated through the study of the the Ardennes in December 1944, focusing on significant actions at corps through army group level. The paper concludes with an assessment of the implications of blitzkrieg and "web" defense for future wars between large, mechanized forces, and recommends alternatives to some of the U.S. Army's current operational concepts.

SECTION II

THEORY OF OPERATIONAL DEFENSE Theory of the Offense

Since the defense interacts with, and is often a reaction to, the offense, we will begin our study of the operational defense by first examining the theory of the offense. Clausewitz tells us that the offense is important, because it is the decisive form of war. Defense by itself will not defeat the enemy; only through the offense can an army achieve victory.

Clausewitz's theory of the offence states that because the attacker initiates the offense he is able to choose the location and time of his attack. Thus the offense often achieves surprise at both the tactical and strategic levels. But Miksche reminds that surprise can also be technical. Technical surprise achieved by employing new or different weapons or tactics against which the defender has not had time to prepare an adequate defense. Both Clausewitz and Miksche agree that an important complement to surprise is speed. A surprise attack followed by a rapid advance keeps the defender off balance. Surprise allows the attacker to gain the initiative; speed allows him to keep it. Thus the defender is never able to recover from the initial blow. He cannot regain control of the situation and will be unable to reposition his reserves effectively or to establish new defensive In modern warfare, speed and surprise are represented by maneuver. =

The other important aspect of the offense is material superiority or concentration. Only by means of superior strength can the attacker overcome the advantages which accrue to the defender. To be effective, material superiority must be achieved locally and concentrated for a thrust against a weak point. In modern war material superiority and concentration are achieved by firepower. Thus firepower is the complement of maneuver.

Concepts of German Blitzkrise

Development of the blitzkrieg can be traced to Clausewitz's principle of "thrust-point" or concentration of force aimed at seeking out the weakest point of enemy resistance. Later, Count Alfred von Schlieffen, Chief of the German General staff from 1891 to 1906, added the notion of the battle of encirclement. Schlieffen believed that armies should constantly strive for a decision on the enemy flanks or rear rather than by attacking frontally. These two concepts were used to develop the German storm trooper or "Hutier" tactics of World War I which were used effectively in the final German offensive of 1918. With the development of mechanized forces in the interwar years, the Germans further refined the concept of blitzkrieg. 7

The German blitzkrieg was an operational concept which derived its basic principles from Clausewitz's theory of the offense. The objective of blitzkrieg was to destroy the enemy by the complete envelopment of the flanks and rear of his position.

The creators of blitzkrieg recognized that large, modern armies would not have open, undefended flanks. Therefore, a flank had to be created. The attacker would have to breach and penetrate before he could envelop the defender. This led to the search for weak points.

Once a weak point had been located, the attacker concentrated overwhelming combat power in the form of a mechanized, combined arms team consisting of armor, infantry, artillery, engineers, and aviation to pierce the weak point and create a gap in the defender's lines. Through this gap flowed additional forces which then rolled out to envelop enemy positions from the flanks and rear. Finally, reserves were committed rapidly into the gap to help widen the breach and maintain the momentum and speed of the attack. Surprise, concentration, speed, and initiative were the keys to victory.

The advantage of the German blitzkrieg concept is that it places the defender on the horns of a dilemma. He is confused. His attention is diverted everywhere at once. In his attempt to react, the defender's front line units are tied down everywhere, while his reserves are spread out to cover the greatest number of avenues of approach. Therefore, the defender cannot concentrate his forces at the decisive point. He is chopped-up and destroyed piecemeal by the attacker. 10

Theoretically, a blitzkrieg attack could rupture even the strongest defense; no defender should be able to withstand a blitzkrieg. However, for the defender, all is not lost. Both

Clausewitz and Miksche agree that even though the offense is the decisive form of war, the defense is the stronger form of war. In other words, a defender who properly applies the principles of the defense should be able to defend successfully against even a blitzkrieg offense. Next, we will examine the theory of the defense to determine why it is the stronger form of war, and how to employ it successfully against a blitzkrieg.

Theory of Defense

CONTRACTOR CONTRACTOR CONTRACTOR CONTRACTOR

SECRETARY DESCRIPTION NECESSARY SECRETARY SECRETARY

In classic Clausewitzian theory, the defense is the stronger form of war. The purpose of the defense may be to preserve combat power, to gain time, to occupy terrain or to protect the defender's center of gravity. If the offense were the stronger form of war, there would not be a need for the defense since its primary purpose is preservation. If the offense were the stronger form of war, armies would only want to attack, since nothing could be gained by defense. Only the stronger army can employ the weaker form, offense, to achieve decisive results; The weaker army chooses the stronger form, defense, for the lesser goal of preservation. **

Because the defense is primarily passive, the defender enjoys the advantage of exploiting any mistakes made by the attacker. The defense also derives advantage from terrain. Terrain usually conceals and protects the defender while the attacker, at some point, must expose himself to the defender at the point of attack. 12

Initially, surprise benefits the attacker because he is free to strike at any point along the defensive line. However, once the attacker has committed himself, the defender is then able to surprise the attacker by the strength and direction of his counterattacks. It is through the use of well-timed and directed counterattacks that the defense robs the offense of its last remaining advantage - initiative. 13

Since, in theoretical terms, only the offense can achieve decisive results, the defender can only defeat the attacker by launching his own offense: the counterattack. Therefore, the counterattack must be an integral part of the defense. The aim of the counterattack is to destroy the attacker's center of gravity. The more combat power that can be concentrated against the enemy's center of gravity, the more decisive the counterattack will be. At the operational level, the enemy army becomes the center of gravity, which must be destroyed. 14

Another benefit which accrues primarily to the defender is concentric attack. In modern war with large armies spread over wide fronts, the attacker can seldom employ concentric attacks until he has penetrated the defender's main defensive line. The defender, however, can employ concentric attacks against the attacker as soon as he begins to penetrate the defender's position. The advantages of concentric attack are psychological in that, by placing a force in the attacker's rear or threatening an exposed flank, the defender may cause the attacker to fear that he is being cut off from the rest of his forces. Concentric attack also often achieves surprise since the attacker's

attention is usually not focused in the direction from which the attack comes. Finally, the defender has the advantage in that a concentric attack may catch the attacker's forces in a crossfire or even physically cut them off from follow-on and support forces.

Practically speaking, the theoretical principles of the defense may be applied to several different circumstances and used to develop different defensive concepts such as forward defense, defense in depth, mobile defense, or "web" defense. applied successfully i٣ Western Europe against blitzkrieg-style offense, a defensive concept must be able resist infiltration, defend against the inevitable rolling out of the attacking force, restrict the flow of the attacker's reserves, and decisively defeat the attacker's concentrated main effort. Considering the defender's advantages of surprise through counterattack and terrain, the theoretical concept best suited for a defense in Western Europe against a blitzkrieg-style offensive is the "web" defense.

Contract States

8.03.20

"Web" Defense

The "web" style defensive concept was first articulated by Miksche in the early 1940s as the modern shield to protect against the modern sword of the blitzkrieg attack. A successful "web" defense against a blitzkrieg is conducted in two phases. In the first phase, a series of mutually supporting strong points arrayed in depth is used to delay and attrit the

attacker. In the second phase, the defender launchess a large-scale counterattack to defeat the attacker. 16

The first factor in the "web" defense is depth. Depth is achieved by placing a number of zones or lines of defense one behind the other. Thus the attacker breaches one defensive line only to be confronted with another. Successive defensive lines slow and constrict the movement of the attacker. The offense is robbed of speed and prevented from <u>aufrollen</u> or rolling out to attack the defenders positions from the flank or rear. 17

The second aspect of the "web" defense is the presence of strong points or islands of resistance. These defensive positions are arrayed in depth and capable of fighting in any direction. They are capable of fighting independently even when surrounded. The purpose of the strong points is to delay and attrit the attacker. Because these strong points are arrayed in depth on the battlefield, the attacker is forced to fight a number of isolated battles simultaneously. His main thrust is broken up into smaller thrusts as the attacker loses concentration. 14

Combined arms operations are just as important in the defense as in the offense. Strong points are manned not only by infantry, but also by armor and engineers with adequate artillery and aviation support. During the first phase of the defense, these forces launch local counterattacks into the flanks and rear of the attacker. These local counterattacks slow and attrit the attacker. Instead of attacking the flank and rear of the defender, the attacker now finds that his flanks and rear are

being attacked. This forces the attacker to further disperse his forces in an attempt to defend against these local counterattacks. 19

The defender is now well on his way to achieving his first objective of delaying and attriting the attacker. Strong points also cut the attacker off from his follow-on forces, such as reserves and logistical support. Without the rapid commitment of reserves, the attack quickly loses its momentum and the initiative begins to pass to the defender.

CONTRACTOR CONTRACTOR CONTRACTOR

PERSONAL MANAGES RECEIVED PROPERTY

The "web" defense offers protracted resistance, gaining for the defender to identify the main time attack and concentrate his armored reserves for a large-scale counterattack. It is this large-scale counterattack, "the flashing sword into the attacker's center of gravity that turns the vengeance", tables in favor of the defender and decisively defeats attacker. Roles are now reversed and the attacker becomes defender. Although the attacker now receives all the benefits of the defense, he is deep in enemy territory, on unfamiliar ground, and cut-off from his reserves and support units. He must now try to gain time and avoid a decisive defeat by either establishing a hasty defense or falling back on a more defensible position.

Thus we see that the offense and defense interact. The offense begins with an attack but ends as defense, while the defense begins by defending and ends by attacking. Having discussed the theoretical basis of blitzkrieg and "web" defense, we will now examine the application of these concepts in a major World War II operation— the Ardennes in 1944.

SECTION III

THE ARDENNES-1944

By December 1944, the Allies had regained most of the territory which had been occupied by Nazi Germany. In Europe seven Allied armies approached Germany on a broad front. The outlook on the German side, however, was not so bright, and Hitler was determined to act decisively while German industry was still producing war materiel and morale at home was reasonably After analyzing the situation, Hitler decided to attack in high. the West, out of the Ardennes. Antwerp would be the final objective. This would allow the Germans to disrupt the Allies' supply flow destrov all forces north and Bastogne-Brussels-Antwerp line. Such a blow would also severely strain the Anglo-American alliance. *1

The German offensive began at 0530, 16 December 1944, as over 2,000 artillery pieces began an intensive barrage along the Ardennes front from Monshau to Echternach. As an economy of force measure, LTG Omar N. Bradley's 12th Army Group manned the rugged Ardennes with only six divisions organized into two corps. American divisions were deployed in a rigid, forward defense with little depth and no operational reserves.

The German offensive was conducted by Field Marshal Walter Model's Army Group B consisting of two infantry and two panzer armies. The schwerpunkt (main effort) of the offensive was Sixth

Panzer Army. Its mission was to break through the Allied line morth of the Schnee Eifel (see Map 1) and thrust towards the Meuse River with four SS panzer divisions. After seizing crossing points along the Meuse between Liege and Huy, Sixth Panzer Army would drive forward to the Albert Canal between Maastricht and Antwerp. The penetration of the infantry divisions through the rugged terrain of the Hohes Venn would be supported by an airborne operation to seize key crossroads and bridges.

Fifth Panzer Army would break through the Allied line seizing the key road junctions of St. Vith, Bastogne, and Marche, cross the Meuse between Andenne and Givet, and then, push on through Dinant and the Sambre River, into the Brussels area west of Antwerp. Fifth Panzer Army was also responsible for protecting Sixth Panzer Army's southern flank. In the south, Seventh Army would protect the southern and south-western flank by breaking through the Allied line and establishing a defensive line Gedinne-Libramont-Medernach. In the north, Fifteenth Army would protect the Meuse crossings and contain Allied forces in the Roermond-Liege area east of Eupen. In addition to support from Luftwaffe, artillery, flak and engineer units, Army Group B had one division in reserve. An additional ten divisions were held in OK West reserve. Five of these were eventually committed to the offensive.

Although the German attacks of 16 December achieved total surprise, they failed to reach their first day's objectives. (see In the North, Sixth Panzer Army's LXVII Corps failed to break through the 99th Infantry Division. In the I SS Corps sector. 12th SS Panzer Division was committed to assist the breakthrough by LXVII Corps, and 3rd Parachute Division made little headway against the 14th Cavalry Group. Waiting to exploit 3rd Parachute division's breakthrough, 1st SS Panzer Division became entangled in a tremendous traffic jam. In Fifth Panzer Army's area, LVIII and XLVII Panzer Corps were delayed by two regiments of the 28th Infantry Division which established company-size strong points at key road junctions. In the south, Seventh Army's four Volks Grenadier divisions made little progress against a regiment of the 28th Infantry Division, a battalion of the 9th Armored Division and a regiment of the 4th Infantry Division.

GEN Dwight Eisenhower and LTG Bradley were attending a conference at SHAEF when they were informed of the German attack in the Ardennes. Bradley thought the Germans had launched a spoiling attack, but Eisenhower immediately recognized it as the main German attack. Consequently, he made three very important decisions. Because 12th Army Group had no reserve, the SHAEF reserve (XVIII Airborne Corps with the 82nd and 101st Airborne Divisions) was ordered from its refitting area at Reims to the Ardennes. 10th Armored Division, out of the line in Third Army

sector, and 7th Armored Division, from Ninth Army, were also ordered to move to the threatened area. **

The next day, 17 December, with only limited information about the tactical situation in the Ardennes available, Eisenhower decided on his operational concept for dealing with the German attack. He decided that the German penetration must be held short of the line Luxembourg City-Sedan- Meuse River-Liege. Reserves would not be committed piecemeal. All available combat units, including engineers and antiaircraft artillery, would be used to delay the enemy as long as possible while reserves were brought up and concentrated.

North, V Corps commnader, MG Robert W. Gerow, realized the seriousness of the situation, and pulled the 99th and 2nd Infantry Divisions back into a strong defensive position along Elsenborn Ridge. In the center, Kampfgruppe Peiper, a strong combined arms task force from 1 SS Panzer Division consisting of ninety-two tanks, a panzer grenadier battalion, a light flak battalion, an artillery battalion, and two engineer companies, untangled itself from the traffic jam behind 3rd Parachute Division, broke through the front line, and was exploiting the gap between V and VII Corps by driving towards the Meuse. Late that day, the 7th Armored Division arrived in St.Vith, while Combat Command B (CCB), 10th Armored Division arrived just in time to shore up the southern shoulder. After resisting heavy

attacks throughout the day, the 28th Infantry Division was forced to withdraw, leaving the road to Bastogne open. (see Map 3)

On 18 December, 1st Infantry Division arrived in V Corps to help stabilize the northern shoulder. Kampfgruppe Peiper continued its advance but was seriously delayed by combat engineers from the 51st and 291st Engineer Combat Battalions manning roadblocks at key river crossing sites across the Salm and Ambleve Rivers. GEN Eisenhower alerted the last units available to him, the 11th Armored, 17th Airborne, and British 6th Airborne Divisions in England to move to the Continent.

On 19 December, V Corps began to gain the initiative with the arrival of the 30th Infantry and 82nd Airborne Divisions. These units blocked Kampfgruppe Peiper's last route to the Meuse. In St. Vith, the 7th AD held out against increasing pressure. In the center, MG Troy Middleton, VIII Corps Commander, used four combat engineer battalions augmented with remnants of the 28th ID to delay the German advance towards Bastogne at Wiltz. Under heavy attacks from XLVII Panzer Corps, the delaying force withdrew from Wiltz on the night of 18 December. But by then Bastogne was occupied by the 101st Airborne Division and CCA, 10th AD. (see Map 4)

19 December was another critical day for Allied decision-making. At a major commanders' meeting in Verdun, Eisenhower reminded his commanders that the Germans could not be allowed to cross the Meuse. It was also decided that Patton's

Third Army would absorb VIII Corps and attack north to relieve Bastogne between 22 and 23 December. Meanwhile, 6th Army Group would extend its flank north to cover the gap caused by Third Army pulling two of its three corps out of line for the attack north. Eisenhower's overall concept was to hold the northern shoulder while he counterattacked in the south.

By 20 December Bastogne was almost completely surrounded and the 7 AD at St. Vith was also threatened with encirclement. (see Map 5) Because 12th Army Group's headquarters was established south of the penetration, the German advance would soon cut the direct line of communication with First Army headquarters located in Spa. In addition, the only remaining major allied reserve was 21st Army Group's XXX Corps. Eisenhower decided that his best course of action was to attach First and Ninth Armies to Montgomery's 21st Army Group while Bradley's 12th Army Group would remain in control of Third Army.

Montgomery visited First Army headquarters later that day and made two important decisions. First, he approved Hodge's disposition of V and XVIII Corps. Second, he directed that MG Lawton Collin's VII Corps headquarters be pulled from the line north of Eupen and used to lead a large scale counterattack. Ninth Army would move its boundary south to include the VII Corps divisions left in place.

On 20 December, 9th Infantry and CCB, 3rd Armored Division arrived in the north, while the Fuehrer Begleit Brigade

(equivalent to a small panzer division) was committed in a renewed attack by LVIII Corps to take St. Vith. By 21 December, First Army's stubborn defense of Elsenborn Ridge and St. Vith was beginning to pay dividends. Frustrated by Sixth Panzer Army's inability to achieve a breakthrough, Field Marshal Gerd von Rundstedt, Commander OB WEST, shifted his <u>schwerpunkt</u> from Sixth to Fifth Panzer Army. Later that day a strong rampfgruppe from 116th Panzer Division reached the Ourthe River at Hotton, but was repelled by a reinforced company of the Sist Engineers. Meanwhile, the 84th Infantry Division began arriving at Marche. Late that night, 7th AD finally withdrew from St.Vith.

VII Corps headquarters arrived on 22 December and the British 29 Armored Brigade moved into blocking positions along the Meuse south of Dinant. In the south, III Corps launched its counterattack towards Bastogne with three divisions, two infantry and one armored.

The remnants of 7th Armored Division withdrew across the Salm River behind the 82nd Airborne Division on 23 December as I SS Panzer Corps renewed its attempt to break through XVIII Airborne Corps. Additional reinforcements began to arrive in the form of 2nd Armored Division. Despite the increase in Allied strength, the Germans still had four panzer divisions (2d, 2d SS, 116th and Panzer Lehr) probing towards the Meuse. 23 December was also the first clear day and aircraft from IX and XXIX Tactical Air

Commands inflicted severe losses on 2nd and 116th Panzer Divisions. (see Map 7)

Although the Allied line had stabilized by 24 December, it was not a continuous line but rather a series of strong points at key road junctions and river crossings. Montgomery decided to withdraw XVIII Airborne Corps from its exposed position along the Salm River as German panzer attacks continued to make progress towards the Meuse.

By 25 December, the <u>schwerpunkt</u> of 2nd Panzer was only six kilometers from the Meuse at Dinant while the 116th and 2nd SS Panzer Divisions were making strong supporting attacks towards Namur. Collins realized that despite Montgomery's guidance to hold divisions for a planned counteroffensive, only a strong local counterattack could stop 2nd Panzer's drive for the Meuse. He then ordered 2nd Armored Division to counterattack into the flank of 2nd Panzer Division. The counterattack was successful, and 2nd Panzer was stopped at Celles. Meanwhile, another of Collins' divisions, 3nd Armored, also launched a local counterattack to stop 2nd SS Panzer's drive to Namur. (see Map 8)

By 26 December the German offensive had ground to a halt. Increasing Allied strength, relentless attacks by fighter bombers, and a severe shortage of gasoline had sapped the Germans of their strength. At dusk on 26 December, leading elements of III Corps' 4th Armored Division broke through to Bastogne. ET Although days of hard fighting still remained, the Germans'

forward momentum was checked, and all along the line, German divisions began going over to the defensive. The Allied line had held.

Montgomery's 21st Army Group launched its large scale counteroffensive on 3 January 1945. His decision to attack the nose of the German salient rather than to drive from the shoulders deep into the German rear has proved extremely controversial. The result was a slow, grinding offensive which gradually pushed the Germans out and restored the original Allied defensive positions. (see Map 9) While Montgomery's advance on a broad front caused the Germans further losses in men and material, several panzer units were able to disengage and withdraw from the salient. By 7 February 1945, the Allied line was restored and seven Allied armies were again poised on Germany's borders ready to launch the last phase of the war in Western Europe: the crossing of the Rhine and the advance into the heart of Germany. (see Map 10)

SECTION IV

DEFEAT OF THE GERMAN BLITZKRIEG

Failure In The Ardennes

The German attack in the Ardennes contained all the ingredients for a successful blitzkrieg. Yet the attack failed. Why? The purpose of this section is to examine the reasons for

this failure in terms of the theoretical concepts discussed in Section II.

The first reason for the German Army's defeat in the Ardennes was the failure of Army Group B to concentrate its strength against weak points. Although on an operational level Fifth and Sixth Panzer Armies attacked the weakest portion of the Allied line, tactically, Sixth Panzer Army's <u>schwerpunkt</u> was directed at the strongest portion of First Army's positions in V Corps' sector where 2d Infantry Division was actually attacking through the 99th Infantry Division. Had the German <u>schwerpunkt</u> been shifted south where VIII Corps was defending a sixty-five mile front, the attack could have achieved much more significant results.

German failure was the Another reason for tremendous advantage the Ardennes terrain gave to the defender. With steep river valleys, narrow twisting roads and thick forests, the Ardennes consists of some of the most rugged terrain in Western Europe. In December 1944, off road vehicle movement was limited to only a few mobility corridors which ran perpendicular to the German axis of advance. Since roads were easily blocked at stream crossings and in villages, small units were able to delay larger, more powerful units for long periods of time. Because off road movement by large armored forces was so restricted, road junctions dominated movement through the Ardennes and were key to controlling the Ardennes. **

Key American commanders, such as Eisenhower, Gerow and Middleton, quickly recognized the value of these road junctions and established strong points at each one. Operationally, these strong points acted as a "web" defense by delaying and attriting attacking German forces and separating attacking forces from their reserves and logistical support. Delays at St. Vith, Malmedy, Bastogne, Marche, and Rochefort disrupted the momentum and timing of the German offensive, giving the Allies time to react, bring in additional reserves and establish a coherent defensive line in front of the Meuse. Throughout the battle the Germans never controlled more than four of thirteen key road junctions. 30

In addition to holding these key road junctions, the Allies were also successful in holding the shoulders of the penetration. Because the Germans were unable to widen the penetration, the flow of men and material into the gap was severely restricted. The Germans were also unable to roll out and envelop Allied units on the flanks.

Perhaps the biggest reason for the German failure was the rapid Allied reaction to the German attack. In dealing with the German threat, the Allies displayed tremendous mental and physical agility. A review of the history of World War II shows that the German blitzkrieg was only successful against commanders who did not understand the dynamics of modern war and armies which were not equipped to wage it. Poland in 1939, France in

1940, and Russia in 1941-42, are examples. In the Ardennes in 1944, this was not the case. Senior commanders, such as Eisenhower, Patton, Montgomery, Bradley, Gerow, Middleton, and Collins, understood the dynamics and tempo of modern war. They understood the necessity of preventing the German's initial tactical penetration from being exploited into operational and strategic success. Unlike the Poles in 1939 and French in 1940, they reacted quickly to close the breach and bring up reserves.

Eisenhower, Patton, Middleton, Gerow, and Collins immediately recognized the significance of the German offensive. All made critical decisions almost immediately which transformed Allied line from a rigid, forward defense to a dynamic flexible "web" defense. These decisions established the nature of the defense and decisively influenced the outcome of the Eisenhower immediately started reinforcements moving battle. toward the area. These four divisions played an important role in containing the German penetration. Later he gave control of the northern half of the Bulge to Montgomery. This decision improved Allied command and control within the battle area also increased the reserves available (21st Army Group's $\mathsf{X}\mathsf{X}\mathsf{X}$ Patton anticipated the German offensive. His early Corps). planning for a counterattack to relieve Bastogne diverted Fifth Panzer Army's attention and resources away from its drive to Middleton quickly recognized the value of holding Meuse. road junctions and the southern shoulder of the penetration.

organized combat support units to plug gaps and hold key areas as long as possible, thus gaining time for the 101st Airborne Division to occupy Bastogne and for Patton's III Corps to launch its counterattack. In the north, Gerow identified the key defensive position of Elsenborn Ridge. This strong defensive terrain stopped Sixth Panzer Army's drive before it really got started and played a key role in restricting the German breakthrough. During the first day of fighting, Collins reacted immediately without orders to send reinforcements to V Corps. These units, 1st, 9th, and 30th Infantry Divisions, instrumental in blocking Sixth Panzer Army and reinforcing the northern shoulder. Later, Collins disobeyed Montgomery's orders launched local counterattacks by the 2d and 3rd Armored and Divisions which finally halted the German advance to the Meuse.

Physical agility was also important. All Allied divisions were fully motorized. Infantry divisions could travel as far and as fast as armored divisions. This mobility differential between German and Allied units gave the Allies a tremendous mobility advantage. Because the Germans failed to apply sufficient pressure along the Allied line to fix units on the flanks, armore and infantry divisions were pulled out of line in areas as far away as 200 kilometers from the Ardennes and concentrated in the battle area in a matter of hours.

The organization of Allied combat units also facilitated agility. Divisions were rapidly moved from one corps to another

and even corps headquarters were moved from one area to another and passed from one army to another. This organizational flexibility allowed senior commanders to transition rapidly from a rigid forward defense to a dynamic "web" defense and quickly to reorganize to maximize combat power. Additionally, the ability of many combat support units, such as engineers and antiaircraft artillery, to fight as infantry was instrumental in delaying German units long enough to bring up Allied reserves and establish a coherent defense.

Carried Control

CONTRACTOR STATES

Constitution in the second sec

A final reason for the German failure was their lack of depth and logistical support. Only limited operational reserves were available at Army Group B and OK West, and these were committed precedent and too late to influence the outcome of the offensive decisively. Lack of adequate logistical support was another problem. The German Army could not make good material losses in tanks and other heavy equipment. Because only a limited number of recovery vehicles were available, damaged equipment, which could have been repaired, was abandoned on the battlefield. Artillery ammunition and fuel were also in short supply. In fact, 'German planners were counting on using captured stocks of Allied fuel to maintain the offensive. Artillery ammunition was in such short supply that most artillery battalions began the offensive with only two to four days supply on hand instead of the required fifteen days supply.

Superiority of the Defense

Based on our historical example of the Ardennes in 1944, we can conclude that the defense is indeed the stronger form of war and that a "web" defense can be employed effectively against a blitzkrieg offense. In the Ardennes the Allies used all aspects of the classical "web" defense as described by Miksche. Although they halted and eventually reduced the German penetration, the Allies failed to achieve a decisive victory. Because the Allies attacked the nose of the penetration instead of conducting an enveloping attack from the shoulders, the majority of German panzer units were able to withdraw from the salient to fight again.

STATE OF STA

Contract lessesses Contraction

One aspect of the battle which mitigated against an enveloping attack from the shoulders of the penetration was the easily defended terrain of the Ardennes. Once the German offense halted and went over to the defensive, all the advantages of the defense, including the advantage of terrain, accrued to the Germans, not the Allies.

SECTION V

OPERATIONAL DEFENSE AND AIRLAND BATTLE

Soviet Blitzkrieg Theory

As P.H. Vigor and others have pointed out in recent years, the Soviets are the inheritors of German blitzkrieg theory. Soviet ground forces are organized, trained, and equipped to fight a mobile, fast moving battle. The Soviet theory of war is based primarily on the philosophies of Lenin and Clausewitz. Since the German view of war was also based largely on Clausewitz's teachings, we should not be surprised at the remarkable similarity between German and Soviet blitzkrieg theory.

The Soviets have spent a considerable amount of time analyzing German blitzkrieg theory and practice during World War II, and have found it lacking in several areas. What Vigor calls "Soviet blitzkrieg theory" recognizes these flaws. Having absorbed these lessons and incorporated changes in military capability brought about by new technology, the Soviets have developed their own version of blitzkrieg theory. The basic tenets of Soviet blitzkrieg theory are to:

- 1) Establish unified doctrine, training, and equipment throughout the force.
 - 2) Secure complete mastery of local air space.

- 3) Achieve surprise at the strategic, operational and tactical levels.
- 4) Concentrate overwhelming superiority of men and material on principal axes of advance.
 - 5) Maintain a high speed of advance.
 - 6) Strike before the enemy's forces are fully mobilized.
- 7) Obtain close coordination between their three services.
- 8) Stockpile, in advance, sufficient ammunition and equipment to last the whole campaign.
- 9) Conduct airborne landings in the enemy rear to seize key objectives and transportation networks.
- 10) Hit the enemy an initial and simultaneous blow over the whole depth of his position, primarily with missiles.
- 11) Employ a pre-planned program of disruption and sabotage in the enemy's rear.

The Soviets have refined and added to German blitzkrieg theory. It must be expected that in any war begun by the Soviets against NATO, these principles would be vigorously applied in an attempt to achieve an overwhelming defeat of NATO as quickly as possible.

The Ardennes and the Modern Battlefield

There are many parallels between the Ardennes in 1944 and the expected nature of a confrontation between NATO and the Soviets in Western Europe today. The Ardennes provides valuable insight into the nature of future war. The first aspect that the Ardennes has in common with the modern battlefield is that it represents the nature of war between large mechanized forces. The battle clearly shows the complexity of confrontations between highly mobile armies. 34

The second important aspect, as discussed earlier, is that the Ardennes represents the conduct of a successful defense in Western Europe. More specifically, the battle shows how an operational "web" defense could be used to defeat a Soviet blitzkrieg offense. The Ardennes is an excellent example of a mon-linear battlefield. Because of the dense terrain, large formations tended to break into small, isolated units fighting numerous violent engagements. It was a battlefield dominated by confusion in which normal command and control relationships were almost impossible to maintain. Only the initiative of numerous commanders at various levels saved the day.

Continuous operations is another important aspect. The 7th Armored Division fought continuously for six days to deny the Germans the use of the vital road and rail network around St. Vith. BG Bruce C. Clarke, Commander, CCA, 7th Armored Division,

was so exhausted after several days of continuous fighting that he node away from the Salm River tied into his jeep so he would not fall out as he slept! ** Fatigue may have been an important factor in Peiper's critical decision to delay his advance for almost twelve hours in front of Stavelot, giving the 30th Infantry and 82d Airborne Divisions additional time to move into the battle area and establish blocking positions across Peiper's path.

erecens, andoner enaces access, access

Most importantly, because of the relationship between German and Soviet blitzkrieg theory, the Ardennes provides an excellent example of many important German operational concepts which are very similar to Soviet offensive concepts. The first is the use of COL Otto Skorzeny's 150th Panzer Brigade to cause confusion and panic in rear areas. By using captured and simulated American equipment manned by English speaking Germans in American uniforms. Skorzeny's men caused a disproportionate amount of confusion on the Allied side. The use of commando units to capture key objectives and transportation nodes is very similar to the anticipated Soviet employment of Spetsnaz units into NET's rear. 26

Ar even more important parallel between German and Soviet operation I concepts was the German employment of panzer divisions in a role similar to the Soviet employment of Operational Maneuver Groups (OMG). The OMG is a highly significant Soviet operational mechanism for the rapid defeat of

NATO. The Soviets believe that NATO can best be defeated by erupting these highly mobile groups at high speeds into NATO's rear, bypassing centers of resistance, penetrating rapidly, and crumbling NATO's defenses from within. 36

STORAGE STATEMENT STATEMENT STATEMENT STATEMENT

CONTROL CONTROL PROPERTY SERVICES

During the Ardennes, all German panzer divisions functioned as OMGs by attempting to drive to the Meuse-and beyond as quickly as possible, ignoring flanks and bypassing centers of resistance. Fortunately for the Allies, their "web" defense strangled most of these OMGs by depriving them of their mobility. Panzer Lehr, which functioned as a second echelon of XLVII Panzer Corps. became entangled in Bastogne's defensive web. Similarly, Fuehrer Begleit Brigade of LXVI Corps became entangled in St. Vith's defensive web. Stiff resistance along Elsenborn Ridge by V Corps forced the committment of 12th SS Panzer to clear the ridge, thus diverting it from its role of securing Meuse River crossing The entire II SS Panzer Corps, which functioned as sites. second echelon of Sixth Panzer Army, was denied sufficient maneuver. arıd became trapped between. Elsenborn Ridge St. Vith.

Only four German panzer formations achieved any measurable success. These were 1st SS, 2d, 2d SS, and 116th Panzer Divisions. The only successful panzer formation from Sixth Panzer Army was 1st SS Panzer Division's Kampfgruppe Peiper which penetrated over fifty kilometers behind Allied lines. 2d Panzer Division of XLVII Panzer Corps achieved the most success in Fifth

Panzer Army's area by advancing ninety kilometers, while 116th Panzer Division, XLVIII Panzer Corps, was almost as successful. 39

The final major parallel between the Ardennes in 1944 and Western Europe today is the nature of the terrain. To a very large extent, the dense forests and steep river banks which restricted German movement and strengthened Allied defensive positions in the Ardennes have been replaced throughout Western Europe with large, sprawling, urbanized terrain. Properly reinforced, this terrain can provide a significant obstacle to operational maneuver by Soviet forces.

SECTION VI

CONCLUSION

A review of the theories of the offense and defense and the concepts of blitzkrieg and "web" defense show that theoretically the defense is the stronger form of war and that a "web" defense can be used to defeat a blitzkrieg attack. A study of the Ardennes in 1944 provides an historical example in which a "web" defense was used to defeat a blitzkrieg. Since the Soviets have refined blitzkrieg and adopted it to their own use, NATO should, at least in theory, be able to employ a "web" defense to defeat a Soviet attack.

In his book, <u>Soviet Blitzkrieg Theory</u>, P.H. Vigor outlines a scenario for a Soviet attack on NATO. What is missing, however,

is an equally plausible scenario for a successful NATO defense. NATO's current defensive strategy is forward defense. This strategy is predicated on two realities. The first is the political desire to defend West Germany along its eastern border. The second is the geographical fact that West Germany has little operational depth, and that the most defensible terrain is found along the eastern border. West Germany is never more than 500 kilometers deep (from east to west), and at its narrowest point is less than 150 kilometers wide. **

Field Marshal Erich von Manstein's counterattack at the Third Battle of Kharkov (February ~ March 1943) required 300 kilometers of maneuver room, almost twice the distance from the Inter-German border to Frankfurt. Therefore, the limitations of European politics and geography make this type of defense impossible for NATO. What is needed is a defensive concept capable of slowing the Soviet advance, significantly attriting their forces, and gaining time for a large-scale counterattack to defeat the Soviets decisively and restore NATO's territorial integrity. The web defense provides such a concept.

processes recovered assessment consisted assessment leavestuces

A scenario for the successful employment of the "web" defense by NATO would be as follows: During the initial phase of the Soviet offensive, mechanized forces, which are already in place, conduct a covering force operation. This would provide time for German Territorial forces to man islands of resistance in urban terrain behind the covering forces. Meanwhile light infantry

units from CONUS could be flown in to reinforce these territorial units. These islands of resistance would be located as far forward as possible and concentrated on major Soviet thrust lines.

Charles accepted accepted agreement accepted

いないなど

7.000

222222

islands of resistance were established, these the mechanized covering force would withdraw through them to assembly The purpose of the islands of resistance in the rear. would be to delay and attrit Soviet forces. They would gain the time necessary for NATO to form large scale counterattack forces. These islands would provide the shield behind which mechanized could refit and regroup and additional forces mechanized reserves, primarily POMCUS units, could be moved to Europe. The final phase would begin as NATO mechanized forces launched large scale counterattacks to destroy Soviet forces. This is important because only these mechanized forces can decisively defeat Soviet forces.

Employment of a "web" defense solves several of NATO'S problems in conducting a successful defense. The first NATO's lack of depth. A successful "web" defense requires depth of only thirty to sixty kilometers to be successful. Second, it denies the enemy two of his most important assets: speed and mobility. Current Soviet doctrine is to bypass centers of resistance, but they cannot continue to do so indefinitely. OMGs will soon become strangled by their inability to move. Follow-on forces will be jammed on road nets and logistical units will encounter increasing difficulties in bringing up adequate supplies. ** The "web" defense also lessens the impact of NATO's lack of operational reserves by freeing mechanized forces so they can be used decisively in a counterattack role.

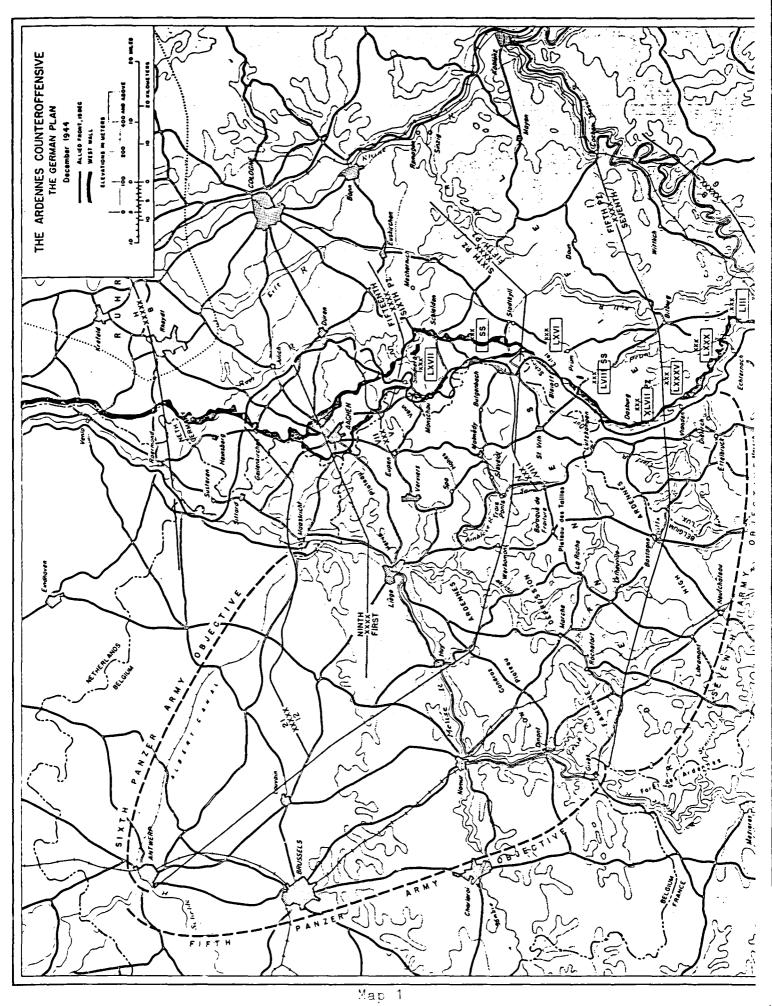
If NATO is to defeat a Soviet attack without resorting to the use of nuclear weapons, it must adopt a viable operational defensive concept, rather than rely on technical solutions and nuclear deterrence. If Clausewitz is correct that the defense is the stronger form of war, then by employing the correct operational concept, NATO should be able to successfully defend against a Soviet attack. "Web" defense is such a concept.

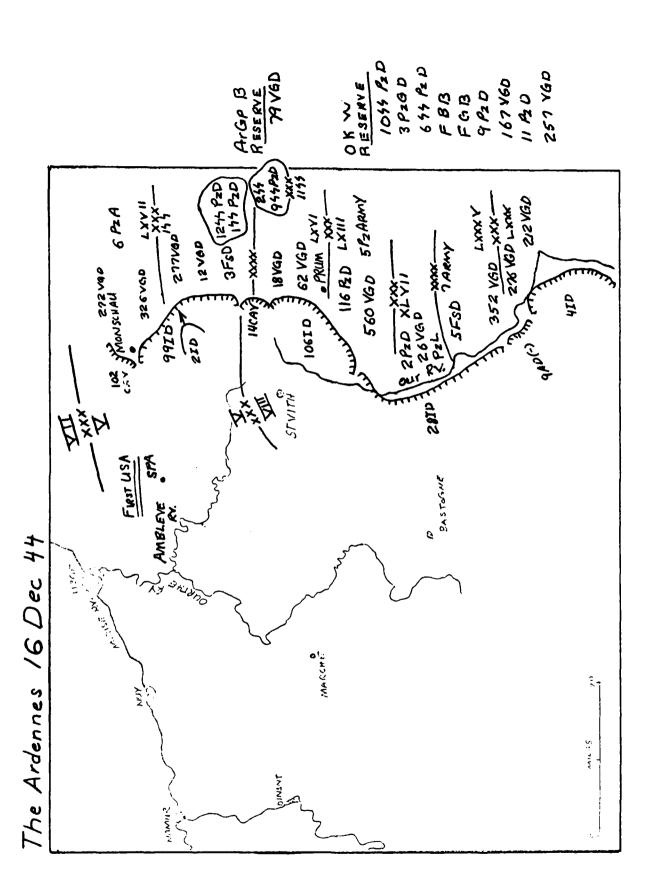
concern appropriate applications

APPENDIX A

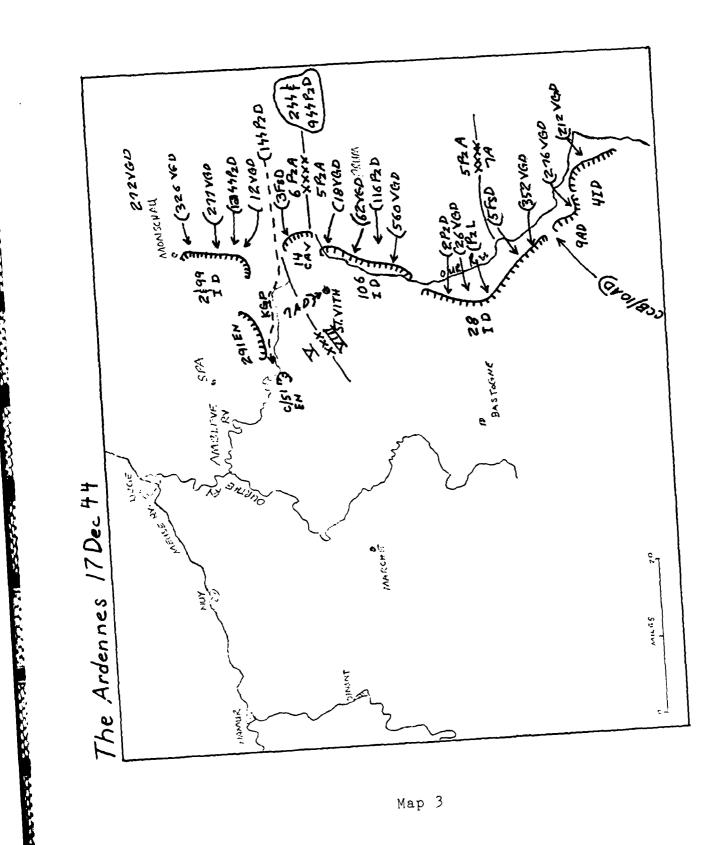
MAPS

gystel acadete processes intropers accepted acadetes acceptes acceptes acadetes acadetes.



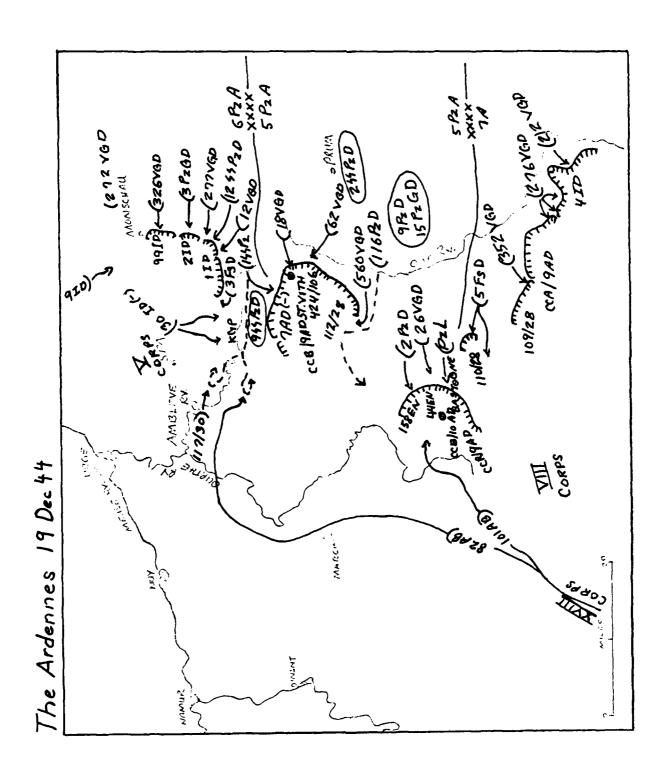


Map 2

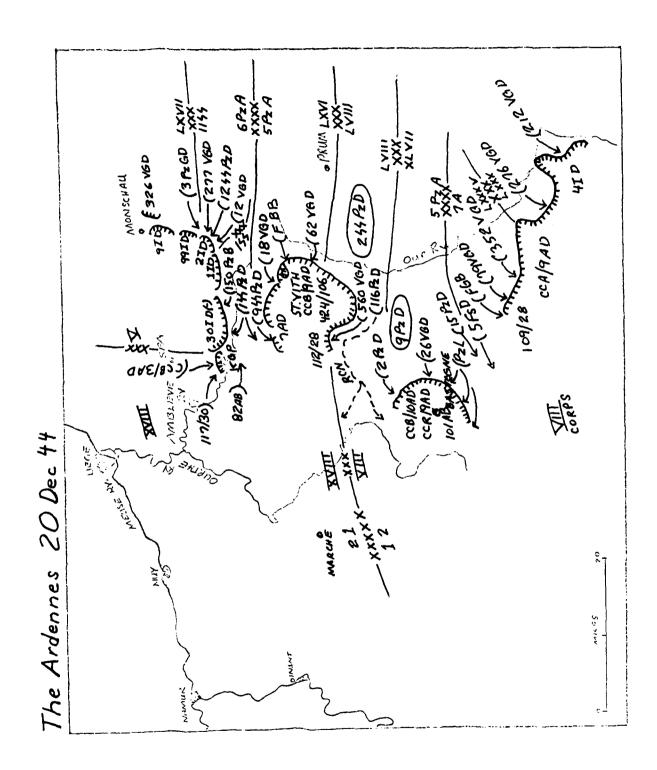


recovered personal

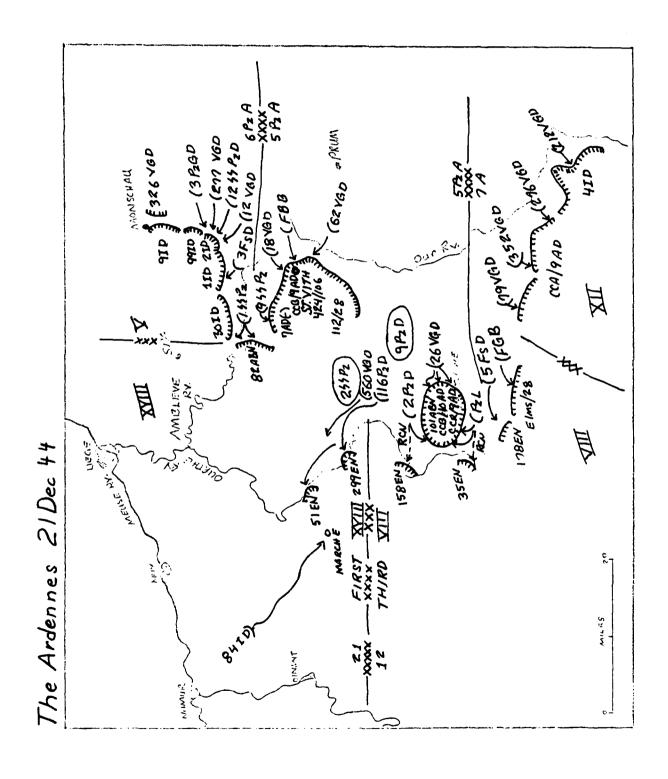
Map 3



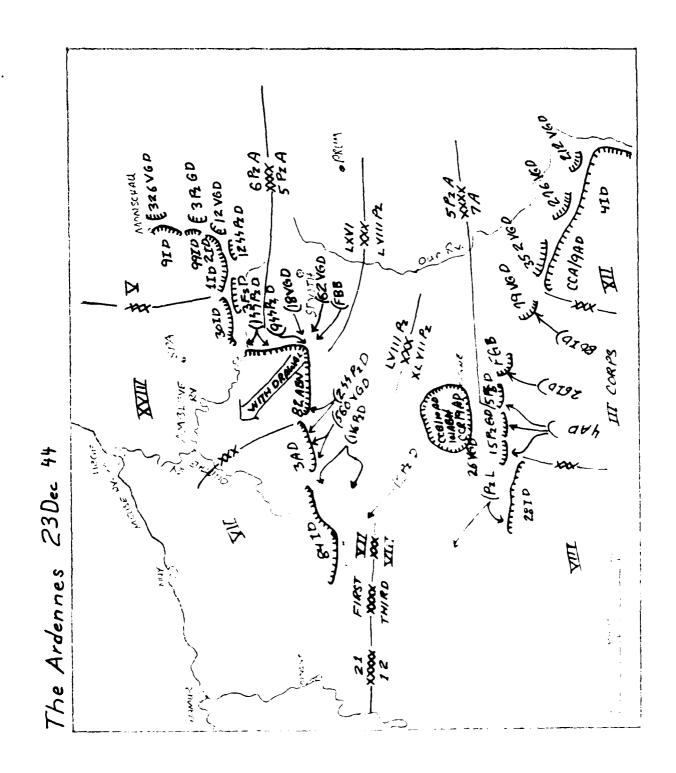
Map 4



Map 5



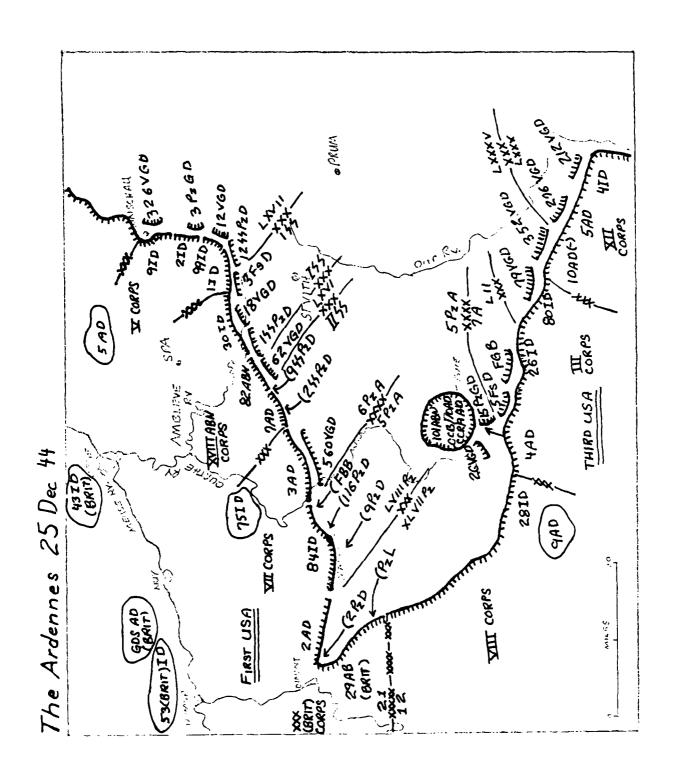
Map 6



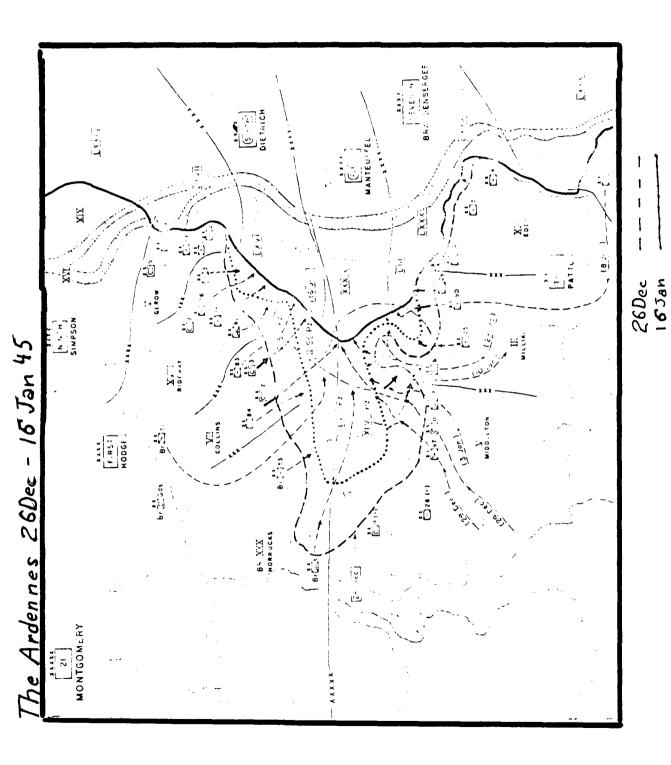
STATE WASHINGTON

socialist secretar socialist contrate appropria experies secretar secretar

Map 7

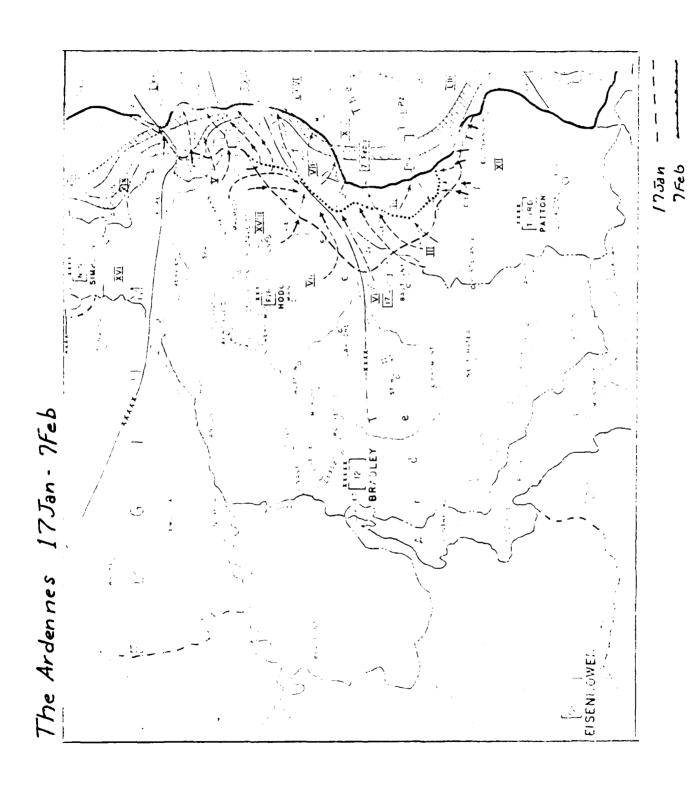


Map 8



PRINCE SERVE SECTION PROPER SESSION FOR

Map 9



Map 10

END NOTES

- *F.O. Miksche, Attack: A Study of Blitzkrieg Tactics (1942): 91.
- *Miksche, Attacks: 1. COL F.O. Miksche was born in Czechoslovakia and served as an artillery officer in the Czech Regular Army for twelve years. In 1936, he resigned his commission and joined the Spanish Republican Army. In Spain he served as a battery and battalion commander and later as member of the General Staff of the Spanish Republican Army. After the outbreak of World War II, he made his way to England and served with the free Czech Army throughout the war.
- The operational level of war fits between strategy and tactics. It is the link between tactical engagements and the achievement of strategic goals. It is the conduct of the campaign by large units, like armies and army groups. (FM 100-5, Operations (Draft) U.S. Army (May, 1986): 2-1 to 2-2.
- *Carl von Clausewitz, On War (Edited and Translated by Michael Howard and Peter Paret) (1976): 545-547.
- SMiksche, Attack: 6-7; and Clausewitz, On War: 545-547.
- SMitsche, Attack: 6-7.
- 7John A. English, On Infantry (1984): 73-75.
- Miksche, Attack: 15-16.
- ∍Ibid.: 16-17.
- ioIbid.

anse monoces, applicas sections undecen personer underen application

- **Clausewitz, On War: 357-359.
- 12 Ibid.
- 13Ibid.: 357-371.
- 14Ibid.: 370, 391, 485-489.
- **English, On Infantry: 103.
- 16Miksche, Attack: 86.
- 17 Ibid.: 74.
- **Ibid.: 74, 87.
- 19Ibid.

- 201bid.: 73-74.
- **Thomas E. Griess, Editor, <u>The Second World War: Europe and the Mediterranean (The West Point Series)</u> (1984): 369-370.
- ==Griess, The Second World War: 378-379.
- =3Jean Faul Pallud, <u>Battle of the Bulge: Then and Now</u> (1984): 32.
- Pallud, Then and Now: 32-36. Army Group B reserve was the 79th Volks Grenadier Division. OK West reserves eventually committed to "Wacht am Rhein" were: Fuehrer Begleit Brigade, Fuehrer Grenadier Brigade, 9th and 167th Volks Grenadier Divisions and 3rd Panzer Grenadier Division. Four other OK West reserve divisions were eventually committed to Army Group G's Operation "Nordwind".
- EsGriess, The Second World War: 378-379.
- **Russell F. Weigley, <u>Eisenhower's Lieutenants: The Campaign of France and Germany</u>, 1944-1945 (1981): 481.
- Second World War: 372-388. The description of the events of Battle of the Bulge are condensed from these two sources.
- World War II, European Theater of Operations) (1965): 39-47. The Ardennes offers three major avenues of approach from the German frontier to the west. These avenues lead generally southwest from the frontier and exit south of Namur at Givet, Libramont, and Virton respectively. In general, movement cross-country is limited, even in good weather; movement along the narrow valley floors can be easily blocked at villages and bridges. The compartmented terrain limits visibility and fields of fire.

The defender has three natural defensive positions between the Meuse and the German frontier. First is the plateau at Bastogne extending along a chain of ridges to Neufchateau. Second is the Ourthe River line. Finally, there is the rugged zone running southeast from between Liege and the Moselle River, around Malmedy and St. Vith and flanked by the Our and Sauer Rivers.

dominated by thirteen major road junctions. In the northeast Monschau, Malmedy, and St. Vith control movement thru the rugged terrain of the Hohes Venn. In the southeast movement can be controlled at Ettelbruck, Mersch, and Luxembourg. Bastogne, Houffalize, Marche, and Rochefort dominated movement in the northwest and Arlon, Neufchateau and Libramont are vital road junctions in the southwest.

POOF thirteen key road junctions, the Germans only captured four: St. Vith in the northeast, Ettelbruck in the southeast, and

Houffalize and Rochefort in the northwest. 31P.H. Vigor, Soviet Blitzkrieg Theory (1983): 1, 29.

3€Vigor, Blitzkrieg: 56-67.

³³Ibid.: 118-119.

*Gregory Fontenot, "The Lucky Seventh In the Bulge: A Case Study for AirLand Battle" (Masters Thesis, USA Command and General Staff College, 1985): 137.

⇒=Fontenot, "The Lucky Seventh": 173, 178.

Foundations of Military Theory, Course 1, School of Advanced Military Studies, USA Command and General Staff College, 1984): 173.

ATSchneider, "Retiarian Concept": 156, 178-182. The Operational Maneuver Group (OMG) is functionally a force of exploitation. The basis for the OMG is the Soviet operational concept of "daring thrust" in which highly mobile columns are launched through gaps in the defenders' lines to capture and destroy key onjectives deep in the enemy's rear. The Soviet concept for employing regimental and division level OMGs is the same as the German employment of mobile Kampgruppe and panzer divisions during the Ardennes in 1944.

Review 65 (September 1985): 42.

39Schneider, "Retiarian Concept": 173-174.

→○Ibid.: 177.

CONTROL CONTROL CONTROL CONTROL BURNING CONTROL CONTROL CONTROL CONTROL CONTROL

4*Ibid.: 190.

BIBLIOGRAPHY

Periodicals

Dick, Charles J. "Soviet Operational Concepts," Military Review 65 (September 1985): 29-45.

Books

Clausewitz, von Carl. *On War (Edited and Translated by Michael Howard and Peter Faret)*. Princeton: Princeton University Press, 1976.

Cole, Hugh M. The Ardennes: Battle of the Bulge (U.S. Army in World War II, The European Theater of Operations) Washington: Office of the Chief of Military History, 1965.

English, John A. On Infantry. New York: Praeger, 1984.

Griess, Thomas E. ed. *The Second World War: Europe and the Mediterranean (The West Point Military History Series)*. New Jersey: Avery Publishing Co., 1984.

MacDonald, Charles B. A Time For Trumpets: The Untold Story of the Battle of the Bulge. New York: William Morrow and Co., 1985.

Miksche, F. O. Attack: A Study of Bliytkrieg Tactics. New York: Random House, 1942. (Reprinted by the U.S. Army War College, 1983.)

Pallud, Jean Paul. Battle of the Bulge: Then and Now. London: Plaistow Press, 1984.

Vigor, P. H. *Soviet BlitzKrieg Theory*. New York: St. Martin's Press, 1983.

Weigley, Russell F. Eisenhower's Lieutenants: The Campaign of France and Germany, 1944-1945. Bloomington: Indiana University Press, 1981.

Unpublished Papers and Manuscripts

Fontenot, Gregory. "The Lucky Seventh In The Bulge: A Case Study For AirLand Battle," Masters Thesis, USACGSC. 1985.

Schneider, James J. "The Retiarian Operational Concept,"

Foundations of Military Theory, Course 1 (Ft. Leavenworth, KS: School of Advanced Military Studies, 1984.)